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ABSTRACT

This report describes the development of an Assessment Center for Deputy Wardens of Security of the Georgia Department of Offender Rehabilitation. The formulation of a complete job analysis based on extensive interviews, questionnaires, on-site meetings, and reviews of job descriptions is outlined, and assessment staff training is discussed. The day-and-a-half candidate assessment and two-day data analysis are described. The paper reports perceptions of correctional personnel, who have been generally supportive of the program, and reviews data obtained on 38 candidates processed by the Center. The reliability of the assessor ratings, consistency of the judgments, and the predictabilty of ratings from pre-concensus scores are also discussed. General dimensions, inter-dimension correlations of pre-concensus and post-concensus assessor ratings, and results of a regression analysis of pre-concensus and post-concensus summaries are included. (JAC)

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# DEVELOPMENT OF A CORRECTIONAL MANAGEMENT ASSESSMENT CENTFR

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

The use of Assessment Center technology in correctional settings is both new and unvalidated, and few guidelines for its application exist in the penal arena. The development of an Assessment Center for top level institutional management required innovative conceptual approaches to overcome some of the problems inherent in both the area and with statistical anomalies. An Assessment Center was developed for Deputy Wardens of Security for the Georgia Department of Offender Rehabilitation. Utilizing extensive interviews, two rounds of questionnaire items, on-site meetings, and documentation of critical instances a complete job analysis was performed.

Conceptual hurdles to be overcome included the reworking of factor-analytic techniques to handle small samples (only 17 Deputy Wardens exist in Georgia) and to allow for the extraction of a "core" of experts. It was this core Deputy Warden group against whose judgements the management dimensions and relative importance of each were developed. Both the underlying factors and management dimensions were highly reliable (Cronbach Alpha exceeded .9 in both instances).

Some 50 correctional employees have been processed through the Department's Deputy Warden Assessment Center since its inception in February, 1982. Utilizing Deputy Wardens and related incumbents as assessors, the Department has evaluated the potential of each of these applicants and has selected 5 individuals to function as Deputy Wardens for Security.

Although extensive longitudinal followup does not presently exist and is in process, preliminary data analysis has shown several interesting results. When assessors' individual ratings of candidates were compared with the weighted aggregation of overall results there was a demonstrated increase in validity. Initial findings show that internal consistency and other non-criterion validity can be surmised.

Management has been both pleased and supportive of the process. From an operational perspective the Assessment Center is viewed as being more accurate and representative than previous selection procedures by both management and the candidates themselves. The Deputy Commissioner for Adult Facilities within the Department has labeled the process "the best personnel selection product I have seen in my years in Government." The five candidates selected through the process have been effectively functioning in the target job classes and plans are to continue to select Deputy Wardens from those candidates who successfully complete the Assessment Center.

Operational aspects and further applications of Correctional Management Assessment Centers are discussed.

# DEVELOPMENT OF A CORRECTIONAL MANAGEMENT ASSESSMENT CENTER[1]

An Assessment Center is a management selection tool which utilizes extensive job analysis to define key operational traits or skills necessary for effective functioning of a specific job class. After key management "dimensions" are formulated for the position, exercises are developed which simulate actual on-the-job performance.

The use of Assessment Centers is new within the Correctional setting. Although Assessment Centers have been used in the Police area, this technology is embryonic within the penal arena. In the case of a Deputy Warden for Security, it would not be practical to allow a potential candidate to actually run a facility in the state and observe how well he or she does. But short of actual job-related situations, it is very difficult to determine who can perform the critical job of maintaining the administrative and physical integrity of a prison. With an Assessment Center, a potential Deputy Warden could be placed in simulated situations typical of those which would be encountered on the job. Performance could then be observed by trained raters, and an evaluation of a candidate's actual ability to perform in the prison setting could be made.

The Department of Offender Rehabilitation has targeted four critical job classes for Assessment Center use. These are Deputy Wardens for Security, Probation/Parole Unit Coordinators, Chief Counselors, and Correctional Lieutenants. Currently, the Deputy Warden Assessment Center is operational, with the task analyses and preliminary work finalized on the other three. Development of the actual simulations for these job classes will commence shortly.

Each of the Assessors used in the program is a Deputy Warden--or another person in the Department very familiar with the requirements of the Deputy Warden job class. Each Assessor undergoes 3-4 days of training, and is exposed to assessment dimensions, exercises, rating procedures, and reliability issues. The ratio or Assessors to Candidates is always at least 1:2.

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[1]The author wishes to acknowledge the valuable assistance of Dr. Elliot E. Entin of Alphatech, Inc., Boston, Mass. throughout the design and validation of this research. Requests for reprints should be addressed to Jerry A. Nosin, Georgia Department of Offender Rehabilitation, 406 Riverchase Drive, Jonesboro, Georgia 30236.

The Assessment Center for Deputy Wardens was developed after extensive interviews, reviews of job descriptions, and a thorough data analysis. A task list was formulated from the transcribed interviews of incumbents and formalized into a task questionnaire. All Deputy Wardens in the State rated the frequency, importance, criticality, relationship to overall success, and consequences of non-performance of the task. These data were subjected to extensive factor-analytic and other analyses and then grouped into generic "clusters" or "dimensions". A definition was formulated for each "dimension" and the items under it were then placed into a second questionnaire which was also rated by incumbents for appropriate placement and definition of the dimension. After this, structured simulations were developed to reflect critical operating traits, and these were validated with Departmental staff.

The Deputy Warden Assessment Center includes staff role plays, inmate interactions, complex planning and budget analyses, oral presentations, written situational exercises, and an individual interview. The actual Assessment Center takes a day and a half for Candidates, with an additional two days required of Assessors to compile their ratings and to develop concensus on each of the candidates. Each candidate is rated on a 5-point scale and provided with a 6-page management evaluation detailing strengths, weaknesses, and a set of recommendations for remediating any skill deficiency. Not only does the report provide concrete behavioral feedback about performance for career development, but is also used to insure that the content of training programs is reflective of the job requirements for each class. These candidates are then placed into the Deputy Warden "pool" and when an opening comes up in a Prison, interviewees are selected from this group of Assessed candidates.

Overall, the response from line officers and correctional staff has been encouraging. Staff perceive this as a much fairer process in that they have the opportunity to be observed in job-related situations by incumbents over a number of different problems.

Perhaps the most positive supporters for the process have been the Deputy Wardens themselves. They were active participants throughout the development of the Assessment Center and are involved in rating and evaluating potential candidates. In addition to a concern for objectivity and an awareness of the impact on employees of what they write, they are supportive because the process offers the department a chance to "pick people for jobs who not only can talk a good game but who can perform as well" as one commented.

The Assessment dimensions themselves were formulated only after overcoming some methodological problems. The questionnaire for Deputy Wardens was composed of some 25 tasks which are rated on 5 scales. Thus, there were 225 data points for each respondent. Unfortunately, there were fewer than 20 Deputy Wardens in the State of Georgia. If traditional multi-variate techniques were used to aggregate and identify patterns, the number of variables would grossly out-number the respondents and it would have been impossible to obtain a stable solution.

Consequently, the problem space was restructured by conceiving of the individuals working in their job class as a pool of experts, since they are the people who were successfully meeting the job demands. We then tried to identify a group of "experts" from this pool that viewed the "world" in a homogenous manner. We did so, isolating a group of individuals with high inter-judge reliabilities who we could refer to for consistent views on each task scale rating.

To accomplish the analysis, the data matrix was rotated 90° so that the raters became the variables and the task by rating scales the replications. Thus, a ratio of "subjects" to "variables" became 10:1. Typically, seven factors were extracted and rotated. For the Deputy Wardens of Security, the first factor, accounting for about 40% of the variance, identified a group of 6 raters who were labelled the "core experts". The views of this group and an additional four more whose views were similar to the "core" shaped the list of dimensions. The results also show a consistent pattern of agreement among all but two of the respondents.

A second analysis computed an oblique rotation of the factors and a coefficient Alpha of .90 was obtained for the Deputy Wardens, signifying high reliability. We were convinced because of the results that the relationships observed among the raters was a very stable one.

Other analyses showed high agreement among the "core of experts" regarding the dimensions being a valid representation of job requirements and skills, and that the simulation exercises appear to be derived from the dimensions. This approach was adopted for analyses in each of the other job classes.

A very conservative approach was taken to assure legal defensibility, empirical justification, and practical methodology for all aspects of the Assessment Center. Every rating form, procedure, simulation, training exercise, dimension, or task item was always looked upon from very conservative legal and statistical assumptions. We ran our first operational Assessment Center for Deputy Wardens in late February, 1982 and are continuing to assess candidates for our "pool" which is used for both career development and management selection when job openings occur.

Assessor ratings and other data were obtained on 38 candidates who were processed through the Deputy Warden Assessment Center.

Initial analyses centered around the reliability of the Assessor ratings and the internal consistency of the pre-concensus and final concensus judgments. These analyses revealed that in the Pre-Concensus Ratings, that is, where individual Assessors ratecandidates on dimensions and them summarize their ratings into an overall score, regression analysis revealed that 6 of the management dimensions accounted for 96% of the variance. Three of the dimensions on the pre-concensus ratings accounted for 93.9% of the variance: these were PROBLEM SOLVING, PLANNING AND ORGANIZING, and DECISIVENESS. The additional three which loaded were MANAGEMENT CONTROL, JUDGMENT, and ORAL COMMUNICATION SKILL. When looking at the final concensus ratings, however, and predicting the final score from various management dimensions, the pattern of dimension loadings shifted somewhat. Looking at the concensus final scores after the Assessors discussed the candidates and arrived at a shared judgment, the MANAGEMENT CONTROL DIMENSION had a multiple R Squared of .72. This dimension alone correlated .85 with the Final Candidate Rating. The other dimensions of PLANNING AND ORGANIZING, ORAL COMMUNICATIONS, and DECISIVENESS accounted for a total of 93.7% of the variance. The weakest dimension was WRITTEN COMMUNICATION SKILLS with an average correlation of only .43.

Table 1 shows the inter-dimension correlations for both the pre-and post-concensus ratings. It is interesting to note that while there are no appreciable differences in the Internal Consistency Coefficients of the pre-and post-dimensions (.964 and .932 respectively) there are overall differences in the magnitude of the correlations. In sum, the pre-concensus correlations are somewhat higher across the board than the post-concensus correlations. The mean pre-concensus inter-dimension correlation was .749 while the post-concensus R was .605. Both scores, however, indicate a very consistent concensus and high internal consistency of Assessor ratings.

Regression analysis was performed to see how accurately a Ss's overall rating could be predicted by pre-concensus scores. Six critical management

dimensions emerged accounting for 94.5% of the variance. PLANNING AND ORGANIZING accounted for 73%, MANAGEMENT CONTROL increased the Multiple $R^2$ to .84, adding DECISIVENESS incremented the variance accounted for to 89%. ORAL COMMUNICATIONS, INTERPERSONAL SKILLS, and WRITTEN COMMUNICATION SKILLS brought up the totals to 94.5%. It is interesting to note that here too, the weakest of the dimensions was WRITTEN COMMUNICATION, which only increased the predictive strength of the regression equation by 1.4%. Table 2 summarizes the management dimensions and percentage of variance accounted for in both the pre-and post-concensus ratings.

One finding which warrants additional exploration when the subject pool get larger is in the area of comparing mean scores to concensus scores. Assessment Centers are predicated on the assumption that the final scores arrived for candidates are not simple arithmetic averages but rather are concensus scores derived after a group discussion, analysis of observations, and give and take between Assessors. In our data there was greater internal consistency in the pre-concensus ratings than in the post-concensus ratings after the Assessor discussion. Concensus would, in theory, make the ratings more homogeneous but in reality, the pre-concensus ratings done by individual Assessors accounted for more variability, though the difference were again not of a large magnitude.

This tendency to account for more variance utilizing the pre-concensus mean scores verses the post-concensus ratings could be attributed to many causes. It is obvious that the Assessors are weighting some dimensions differently after concensus--and they probably feel stronger about certain or the dimensions as important predictors of Deputy Warden success. It is not surprising that there are mediated ratings after the group discussion, after hearing other raters opinions, and looking over data of the candidates' in other situations and hearing documentation of things individual Assessors might not have seen. There is also a review of each case to insure that the rating guidelines are being followed; candidates are looked at from a pragmatic viewpoint in terms of their readiness to assume Deputy Warden job functions and so Assessors as sensitized to the meaning of the rating scales

for these candidates.

One additional possibility which must be mentioned is that these differences are reflecting some instability in the overall matrix due to the N of 38. Although the matrix appears stable and the ratings are remarkably consistent, whether this finding is artifactual or not must await additional data. It is likely, however, that even if pre- and post-concensus differences mediate as the N increases, they will not be totally eliminated due to the dynamics of the Assessor Conference.

Long-term criterion validity data does not exist at this point in time. We do know, however, that of the 5 assessed candidates promoted into the Deputy Warden job from the Assessment Center, 3 of the candidates were rated "4", one was rated "3", and one was rated a "2" on a 5-point scale. Although four of the candidates seem to be doing fine on their job, the candidate with a "2" rating is exhibiting management deficiencies consistent with the Assessment Center Evaluation and may require remedial help or administrative intervention. We do not have external ratings or other longitudinal measures as none of the candidates has been in the job longer than a year.

Looking at internal consistencies across all individual Assessors--and taking into account limited data for some of them--there was a mean internal consistency coefficient of .93 for the 10 Assessors, ranging from a low of .843 to a high of .975. Given that Assessors are reliably dealing with ratings on candidates, we can infer that if the Assessment Center concept is valid, then the Deputy Warden Assessment Center is basically doing what a good Assessment Center should do.

GENERAL DIMENSIONS IN THE DEPUTY WARDEN ASSESSMENT CENTER

JUDGMENT:

Ability to carefully weigh the available information and, drawing upon knowledge or past experience, to reach a logical conclusion concerning people, data, plans, or situations.

PROBLEM ANALYSIS:

Posessing the skills or abilities to effectively investigate and consider the cause and impact of a given problem; in turn to identify logical courses of action based upon available facts or evidence.

ORAL COMMUNICATION SKILLS:

Effectiveness in expressing ideas or concepts verbally in individual or group situations.

PLANNING AND ORGANIZING:

Ability to analyze information in regard to developing a timetable, sequence of events, andother operational requirements in order to achieve a desired effect with resources, people, or other entities within a time frame.

WRITTEN COMMUNICATION SKILLS:

Ability to organize and clearly express ideas in writing using good grammatical form and syntax; also involves the comprehension of the written word of others.

DECISIVENESS:

Ability to render decisions in a timely, resolute, or firm manner and to accept responsibility for such actions.

INTERPERSONAL SKILLS:

Ability to listen to concerns and attend to others objectively; ability to handle interpersonal conflict problems, issues, and concerns sensitively without over-reacting.

MANAGMENT CONTROL:

Entails the development, supervision, or appreciation of procedures, requirements, and personnel in order to insure the physical security and integrity of the operating facility; monitoring of key procedures, tasks, and subordinates to achieve this end.

INTER-DIMENSION CORRELATIONS OF PRE-CONCENSUS AND POST-CONCENSUS ASSESSOR RATINGS: Deputy Warden Assessment Center

post-concensus dimensions ---------- PRE-CONCENSUS DIMENSIONS ----------

| | PRE-C JUDG | PRE-C PROB | PRE-C ORAL | PRE-C PLANN | PRE-C WRIT | PRE-C DEC | PRE-C INTER | PRE-C MGMT | PRE-C SUM SCORE | POST JUDG | POST PROB | POST ORAL | POST PLAN | POST WRIT | POST DEC | POST INTER | POST MGMT | POST FINAL SCORE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JUDGMENT | 1.0 | .898 | .710 | .743 | .646 | .757 | .790 | .666 | .892 | .893 | .821 | .718 | .642 | .553 | .611 | .646 | .557 | .728 | N = 38 |
| PROBLEM SOLVING | | 1.0 | .780 | .784 | .724 | .743 | .835 | .791 | .929 | .801 | .946 | .762 | .651 | .631 | .546 | .686 | .662 | .789 | |
| ORAL COMMUNICATION | | | 1.0 | .834 | .674 | .667 | .830 | .668 | .845 | .683 | .778 | .955 | .673 | .677 | .456 | .818 | .630 | .835 | Pre-Concensus Ratings: |
| PLANNING AND ORGANIZING | | | | 1.0 | .708 | .662 | .736 | .709 | .870 | .710 | .745 | .810 | .895 | .681 | .469 | .686 | .604 | .857 | $\bar{x}$ = .749 S.D. = .0897 |
| WRITTEN COMMUNICATION | | | | | 1.0 | .605 | .557 | .685 | .780 | .550 | .754 | .631 | .531 | .940 | .326 | .395 | .576 | .667 | Coefficient of Internal |
| DECISIVENESS | | | | | | 1.0 | .699 | .627 | .824 | .780 | .706 | .709 | .575 | .474 | .865 | .600 | .597 | .806 | Consistency: .964 |
| INTERPERSONAL SKILLS | | | | | | | 1.0 | .635 | .846 | .704 | .781 | .801 | .571 | .519 | .562 | .865 | .494 | .691 | |
| MANAGEMENT CONTROL | | | | | | | | 1.0 | .829 | .618 | .769 | .688 | .643 | .646 | .484 | .411 | .857 | .838 | |
| SUMMARY SCORE (PRE) | | | | | | | | | 1.0 | .829 | .894 | .829 | .725 | .708 | .612 | .696 | .714 | .887 | Post-Concensus Ratings: |
| judgment | | | | | | | | | | 1.0 | .714 | .705 | .603 | .438 | .668 | .635 | .566 | .757 | $\bar{x}$ = .605 S.D. = .142 |
| problem solving | | | | | | | | | | | 1.0 | .753 | .605 | .679 | .463 | .660 | .689 | .772 | Coefficient of Internal |
| oral communication | | | | | | | | | | | | 1.0 | .673 | .634 | .508 | .789 | .649 | .833 | Consistency: .932 |
| planning and organizing | | | | | | | | | | | | | 1.0 | .539 | .411 | .560 | .590 | .803 | |
| written communication | | | | | | | | | | | | | | 1.0 | .223 | .355 | .529 | .618 | |
| decisiveness | | | | | | | | | | | | | | | 1.0 | .427 | .453 | .639 | |
| interpersonal skills | | | | | | | | | | | | | | | | 1.0 | .392 | .614 | |
| management control | | | | | | | | | | | | | | | | | 1.0 | .850 | |
| summary final score (post) | | | | | | | | | | | | | | | | | | 1.0 | |

REGRESSION ANALYSIS

PRE-CONCENSUS AND POST-CONCENSUS SUMMARY RESULTS FOR DIMENSION RATINGS

PRE-CONCENSUS

| DIMENSION | MULTIPLE R SQUARED |
|---|---|
| Problem Solving | .863 |
| Planning and Organizing | .915 |
| Decisiveness | .939 |
| Management Control | .949 |
| Judgment | .955 |
| Oral Communication | .959 |

POST-CONCENSUS

| DIMENSION | MULTIPLE R SQUARED |
|---|---|
| Management Control | .722 |
| Planning and Organizing | .862 |
| Oral Communication | .910 |
| Decisiveness | .937 |

PRE-CONCENSUS PREDICTING POST-CONCENSUS

| DIMENSION | MULTIPLE R SQUARED |
|---|---|
| Planning and Organizing | .735 |
| Management Control | .841 |
| Decisiveness | .894 |
| Oral Communications | .905 |
| Interpersonal Skills | .930 |
| Written Communication Skills | .945 |